Decarbonising The Automotive Industry

Decarbonising the Automotive Industry– The Government Perspective

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Westminster, London
Decarbonising the Automotive Industry – the Government perspective

IMechE, London 16 September 2008

Graham Pendlebury – Director Environment & International, Department for Transport
Our strategy – four objectives

• Sustain economic growth and improved productivity through reliable and efficient transport networks;

• improve environmental performance of transport and tackle climate change;

• strengthen safety and security of transport

• enhance access to jobs, services and social networks, including for the most disadvantaged
UK CO₂ emissions by Sector

- 36% Industry
- 20% Heat and power
- 9% Agriculture
- 16% Construction
- 13% Residential
- 4% Transport
- 2% Other

2006 Data - NETCEN

Includes UK and international emissions 2006
CO₂ emissions from transport

Total: 173.2 MtCO₂
0.6% Other

Includes UK and international emissions 2006
Other includes LPG, other road vehicle engines and other mobile sources and machinery
Quick reminder – the targets

<table>
<thead>
<tr>
<th>UK, EU &amp; INTERNATIONAL CLIMATE CHANGE TARGETS</th>
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<tr>
<td><strong>UK Climate Change Bill:</strong></td>
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<td>• At least 26% reduction in CO2 emissions by 2020</td>
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<td>• At least a 60% reduction in CO2 emissions by 2050</td>
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<td><strong>EU Climate and Energy Package:</strong></td>
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<td>• 20% reduction in Greenhouse Gas emissions by 2020 - or 30% in the event of international agreement (EC proposal)</td>
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<td><strong>Kyoto:</strong></td>
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<td>• 12.5% reduction in Greenhouse Gas emissions by 2008-2012</td>
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This could rise to up to 80% making delivery even more challenging
Constraints emerge on transport emissions
The CO₂ policy package...

- **Carbon pricing** (tax, trading, regulation)
- **Biofuels**
- **Fiscal measures**
- **Emissions Trading**
- **Vehicle standards**
- **R&D / Procurement**
- **Information**
- **‘Smarter Choices’**
- **Alternatives**

- **Technology and innovation**
- **Remove barriers to change**
Current policies get us some of the way...

Forecast emissions of carbon dioxide from domestic transport

Source: DfT analysis
Analysis is providing some useful pointers

Cumulative trips, passenger distance and CO2 emissions from household car journeys by trip length, GB, 2002/2006 average, Source: DfT analysis
We have also looked at journeys...

Estimated CO2 emissions from all modes of passenger transport by journey purpose, GB, 2002/2006 average, Source: DfT analysis
And we have linked this with trip lengths...

Estimated CO2 emissions from household cars by journey purpose and journey length, GB, 2002/2006 average, Source: DfT analysis

For further details of our analytical work: http://www.dft.gov.uk/pgr/sustainable/analysis.pdf
Longer term view

- A lot of attention on the near term – but also important to take more strategic, long term view

The King Review suggests that by 2030 per-kilometre emissions could be reduced by 50%, equivalent to a 30% reduction in the absolute level of emissions, subject to current technological challenges (e.g. batteries, fuel-cells) being met.

Source: King Review; Part I: the potential for CO₂ reduction, Oct 2007
New car CO₂ - looking ahead

- UK strongly supports setting a longer term target
- 100g/km by 2020
- Important to review in light of progress – no later than 2012
- Support King Review recommendation of further regular target setting – 2020 will not be the final word

Some key questions to be answered:
- Feasibility of 100g/km – or even lower?
- Appropriate metric – not just tailpipe emissions?
**CO₂ from vans**

- Fastest growing source of road transport CO₂
- Commission proposal this year?
- Proposed CO₂ targets – 175g/km by 2012, 160g/km by 2015
- But data issues, plus other considerations (e.g. loading)
- UK taking other actions:
  - Van procurement programme
  - Working with SMMT to make van CO₂ data available to purchasers
Electric Vehicles (EVs)

- EVs offer significant benefits over conventional vehicles.
- Current EVs have limited range and more suitable for use in the city.
- Government offers financial incentives to increase the use of EVs:
  - exemptions from VED and Fuel Duty,
  - ECAs for companies purchasing EVs,
  - lower BIKs for people using EVs as company cars
- Government is working on how to introduce EVs to the mass market:
  - Cenex/Arup Study
  - International Experts’ Meeting
  - EV demonstration programme.
Impossible remedies

• It is easy to propose impossible remedies – “belling the cat”.

• The voters won’t necessarily stand for it.
Thank you for listening

Questions please!